## FLORIDA – THE LIGHTNING CAPITAL OF THE UNITED STATES

## **QUESTION**

What does 'waiving a metal bat in the air, and lightning" have in common?

## ANSWER

A crispy softball player!

A softball game is shutdown due to rain because it makes the ball difficult to catch and throw; and sliding around in the mud and on the wet grass is dangerous.



A softball game is shutdown due to lightning because you can be killed!

There was lightning in the immediate area the other day, and I had to go over to the McCaffrey Softball Fields to shut down a softball game. Historically we have had entire teams knocked to the ground due to a lightning strike on the field.

"Safety, both operational and personal, is a shared responsibility. The message is simple and as old as the Navy itself: leaders take care of their military and civilian personnel. That duty is all encompassing, touching almost every aspect of our personal and professional lives. Leaders take responsibility for the actions and omissions of the men and women they lead, on duty and off, to an extent that is unique to military culture. They actively concern themselves with their peoples' physical and mental well being, training, personal readiness, and family readiness. It is evident that conditions, practices, and habits posing a threat to their safety must be sought out and eliminated by leaders."

While there were several senior military members at that game, both watching and playing, there were no leaders present.

"With safety, moral courage is required: the fortitude to step forward and speak up when an unsafe act or condition threatens harm. Such moral courage is an essential character element."

Regardless of your rank, you have a responsibility to "step forward and speak up," do it!

In the above incident we could have had one or more people killed or seriously injured. We didn't. We got lucky and won that round. Don't expect to get lucky every time – it won't happen! MWR has a horn to secure play at the NAS Jacksonville Golf Club when lightning approaches. Softball games must be secured the same as play on the Golf Course, and for the same reason. Remember, secure the game and be safe!

Florida, the "Sunshine State", has more than one million cloud to ground lightning strikes each year. For this reason, Florida has ironically earned a second nickname, "Lightning Capital" of the United States. On average, over 50 people are struck annually, most requiring hospitalization and injuries on about 10 people result in death.

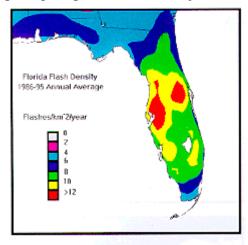


Fig. 1. Mean annual cloud to ground lightning flash density for the period 1986-95. Measured flash counts have been multiplied by a factor of 1.4 to correct for the estimated 70% detection efficiency of the lightning detection network.

Although lightning activity occurs across the entire state, some regions within Florida have higher concentrations of cloud to ground lightning strikes. The Tampa Bay area is struck by more lightning than any other part of the state. Nearly 50 lightning bolts blast each square mile of the bay area annually.

As Florida's overall population continues to rapidly increase, the number of people spending time outdoors also increase. Therefore, a growing number of people are vulnerable to the effects of Florida's weather, namely cloud to ground lightning strikes. During the summer, everyday activities, such as afternoon picnics in a park, golfing, or even walking to a car, can become life threatening.

Although the typical afternoon thunderstorm moving across Florida is relatively short-lived, about 30 minutes, all thunderstorms have the potential to produce cloud to ground lightning. Because thunderstorms are such a common event during the summer months in Florida, people often fail to take shelter when threatening weather approaches. Those who are outdoors often ignore nature's warning signs, such as thunder, darkening skies, or even flashes of lightning nearby.

Studies conducted by the Tampa Bay National Weather Service Office show that people are most often struck under trees, in open areas such as parking lots, fields, airport runways and near vehicles. Lightning usually strikes the tallest objects, such as trees, or a person standing in a field. Lightning is also attracted to metal objects such as chain link fences and cars. The inside of an automobile is relatively safe because lightning travels over the metal exterior to the ground, but standing next to an automobile is not safe.

The summer months of June, July, August, and September have the highest frequency of lightning-related injuries and deaths. Lightning generally occurs between the hours of 900 am and 900 pm. Most people are stuck in the mid-afternoon hours between 300 pm and 400 pm as the typical afternoon thunderstorms reach their peak intensity. Some days are worse than others. The Fourth of July, 1996, proved to be that year's single most dangerous day. 27 picnickers and firework spectators were injured and one person was killed. Adults are struck more often than children and males are struck more often than females. Studies have indicated that more injuries and deaths occur with either the first or last stroke of lightning in a particular thunderstorm. Most people are stuck outside. However, there have been some cases where lightning has traveled through electrical

wires and phone lines and struck people indoors. The safest place to be during a thunderstorm is inside and away from windows and electrical appliances.

Lightning occurs almost daily in Florida during summer, and may strike several miles away from the main thunderstorm. A pertinent safety rule to be stressed is to keep an eye on the sky and go inside as soon as clouds darken and thunderstorms develop.

Think Safety - Work safely, and go home at the end of the shift!